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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,951	02/05/2004	Jerry D. Kline	1384-1032	5297

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EXAMINER	
KARLSEN, ERNEST F	

ART UNIT	PAPER NUMBER
2829	

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/772,951	KLINE, JERRY D.	
	Examiner	Art Unit	
	Ernest F. Karlsen	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0604*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 10-20 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsujide et al.

With regard to claims 1 and 13, Tsujide et al show a semiconductor wafer to be tested 1 including a plurality of die where each die has a plurality of first contact pads, an interposer which is a wafer serving as a burn-in substrate 2 which includes a plurality of second contact pads which are respectively connected to at least some of the first contact pads by attachment elements 4, 5 such that the interposer and semiconductor wafer could be singulated into chip assemblies and a communication interface 9, 23 associated with the interposer and electrically connected to at least some of the second electrical contact pads. With regard to claims 2-6 and 15-19, the connector at the end of ribbon 23 attaches to terminals 9 which are considered part of an edge connector with pins or a bayonet connector with pins. The terminals 9 are on the wafer-interposer assembly. It is considered inherent that the connector at the end of ribbon 23 would be soldered to the connector that makes contact with terminals 9. With regard to claims 7 and 20 any connector is an RF connector in the broad sense. With regard to claim 14, it adds a product by process limitation and the limitation is not considered to further limit an apparatus claim. With regard to claims 10-12 and 23-25, the connector connecting the end of ribbon cable 23 to terminals 9 is considered a quick release connector. The apparatus to Tsujide et al tests and does burn-in prior to singulation. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8, 9, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsujide et al in view of White et al.

Tsujide et al was discussed above but does not show coupling via optical or antenna techniques. White et al show coupling a tester to a device being tested via optical means or RF using an antenna means. (See column 5 of White et al.). It would have been obvious to one of ordinary skill in the art at the time of the invention to have adapted the optical or RF technique of White et al to the apparatus of Tsujide et al because one of ordinary skill in the art would realize that so doing would enable use of the apparatus of Tsujide et al without the encumbrance of wires.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kirihata et al and Tuttle et al are cited to show additional apparatus similar to that of White et al, Frankeny et al '246 is cited to show apparatus where the test structure can be used as part of the final package.

Any inquiry concerning this communication should be directed to Ernest F. Karlsen at telephone number 571-272-1961.

Ernest F. Karlsen

October 26, 2004

ERNEST KARLSEN
PRIMARY EXAMINER